ENGLANDS Happineſs Increaſed,

OR

A Sure and Eaſie Remedy againſt all ſucceeding Dear Years;

BY

A Plantation of the Roots called *POTATOES*, whereof (with the Addition of Wheat Flower) excellent, good and wholeſome Bread may be made, every Year, eight or nine Months together, for half the Charge as formerly.

ALSO

By the Planting of theſe Roots, Ten Thouſand Men in *ENGLAND* and *WALES*, who know not how to Live, or what to do to get a Maintenance for their Families, may of One Acre of Ground, make Thirty Pounds *per Annum*.

BODLEIANA BIBLIOTHECA

Invented and Publiſhed for the Good of the Poorer Sort,

By JOHN FORSTER *Gent.*

——— Natura beatis omnibus eſſe dedit, ſi quis cognoverit uti.

For the Lord hath choſen Sion *to be an Habitation for himſelf*, Pſal. 132. Ver. 14.

I will bleſs her Victuals with increaſe, and will ſatisfie her Poor with Bread, Verſe 16.

LONDON, Printed for *A. Seile*, over againſt St. *Dunſtans* Church in *Fleetſtreet*, 1664.

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TO THE

High and Mighty Monarch

Charles the II.

By the Grace of God, KING of Great Britain, France *and* Ireland, *Defender of the Faith, &c.*

CUſtom, not Neceſſity (Moſt Dread Soveraign) ſeems to be the Cauſe of moſt Dedications, 'tis otherwiſe in this; the Subject and Matter hereof being of publique Utility, requires one of publique Authority to patronize it: Leaving therefore the more Subordinate, I have preſumed to addreſs to Your Majeſty as Supreme, humbly preſenting this my weak Endeavour, this New Plantation, this moſt profitable Invention, to the View and Conſideration of Your moſt SaCRed Majeſty; a meaner Patron not befitting, nor being of Authority ſufficient, to advance and ſet forward a Work ſo generally beneficial; beneficial to Your Majeſty, beneficial to all Your Majeſties Subjects, beneficial to Strangers and Foreigners of other Nations; to Your Majeſty, by a conſtant conſiderable annual Revenue; to all Your Majeſties Subjects, eſpecially to thoſe of the meaner rank, by a cheap, profitable and eaſie way, of providing for, and maintaing of their

Families; to Foreigners and Strangers of the more Northern Climates, by yearly supplying and furnishing them with Corn, which may hereafter be spared out of these Your Majesties Dominions. Seeing therefore, that the Benefit of this Plantation may be so great, be pleased, most Mighty Monarch, to vouchsafe it Your Royal Approbation and Permission; it being a Work of Charity, of so large an extent, that not a few only, but all the Poor in general, throughout these Your Majesties Dominions, will receive benefit by it, will so well be provided for, that hereafter they will have no cause to complain, of the Hardeness of the Years, or of the Dearness of Corn. Besides, this Project may be performed with very little Charge, and also in a short time; for in two Years and an half, the Plantations will be finished, to the benefit of Your Majesty, and great good of the whole Nation; and in three Years, all the Charges (which is only to the Planters) will be re-paid trebble. Thus, leaving it to Your Majesties Wisdom, and Princely Consideration, (craving Your Gracious Pardon for this Presumption) I do hear humbly take my leave, and remain,

Your Majesties

Faithful and Loyal Subject,

JOHN FORSTER.

TO

TO THE

Reader.

COURTEOUS READER,

AMong all the Plagues and Puniſhments Almighty God is pleaſed to inflict upon Mankind for Sin, there are three which ſeem more grievous and intollerable than the reſt, viz. the Sword, Peſtilence, and Famine; of which three, when King David had offended God, in numbring the People, and was put to his choice, in what kind he would be puniſhed for it, choſe the Peſtilence, as the leaſt of the three; (which truly it is, all Circumſtances being conſidered) and of the other two, there is none (I think) but had rather dye in the Field, by the Sword of his Enemy, than be pined and ſtarved to death, by the bitterneſs of Famine. Now, as a good Prince will endeavour, what he can poſſible, to preſerve his Country from war, and the Sword, ſo far as ſtands beſt with the ſafety of Himſelf, and his People. And, as a good Phyſician, will (or at leaſt ſhould) take as much care to preſerve the Health, and prevent the Sickneſs of his Patients, as to Cure them when they are ſick: So, it is the Duty of every good Houſholder, in times of Plenty, to provide for his Family, againſt times of Scarcity and Famine, the greateſt Judgement of the three. For the better, and more eaſie effecting whereof, I have, in this ſmall Treatiſe, publiſhed ſuch a Secret, whereby every man, in the greateſt

greateſt times of Dearth and Scarcity, may have excellent, good and wholeſome Bread, and other kinds of Food, for their Families, at as cheap Rates, as now in times of Plenty; which if well made uſe of, I doubt not, but it will prove more effectuall againſt Scarcity, and a Famine, than the beſt Alexiterium, or Antidote against the Infection of the Plague. And ſince it hath pleaſed God, to deliver ſuch a Talent to my keeping, I was willing (not to hide it in the Earth, or wrap it up in a Napkin, but) to improve it, as well as I could; which I hope I have done, by publiſhing of it, that thou, Loving Reader, mayeſt know it, make uſe of it, and receive the benefit of it; deſiring nothing for my Pains and Labour herein, but thy kind Acceptation; which if I ſhall perceive, I ſhall be the more encouraged hereafter, (according to my Power and Ability) further to ſerve thee, in whatſoever Civility and Humanity commands.

Thine aſſured Friend,

JOHN FORSTER.

From *Hanſlop* in *Bucks*,
JULY the 10*th*.
1664.

ENGLANDS

ENGLANDS Happineſs Increaſed,

OR A

SVRE and EASIE Remedy

Againſt all ſucceeding Dear Years.

SEeing that both by the Law of God, and the Law of Nature, every man is bound to follow ſome lawful Calling, whereby to maintain himſelf, and his Family; for he that provideth not for his owne Family, is worſe than an Infidel, (ſaith the Apoſtle) and becauſe there are many which have not been brought up in any Calling, and many that by one Misfortune or other are come to Poverty, and know

not which way to get a Maintenance for their Families: I shall (for their sakes) endeavour in this Treatise, to shew them a way, whereby (with the blessing of God) they may get an honest Livelyhood, and that without much Charge at the first, or trouble afterwards. And it is by the planting of the Roots called *Potatoes*; by which, not only the Planters themselves will reap much gain and benefit, but also all those that will make use of them, may maintain their Families with much more ease, and far less Charge than at any time heretofore. Now there are divers kinds of *Potatoes*, all which were originally brought from *America*. The first sort, being those of greatest request, are the *Spanish Potatoes*, called of the *Latines*, *Battata*, *Camotes*, *Amotes*, *Igname*, and *Iuhames*. The second sort are the *Virginia Potatoes*, called *Battata*, and *Battatas Virginianorum*, *Papas*, *Papus*, and *Pappus*. The third sort are the *Potatoes* of *Canada*, called of the *Herbarists*, *Heliotropium indicum tuberosum*, *Flos solis piramidalis*, *Aster peruvianus tuberosus*; and falsly in *English*, *Artechokes of Jerusalem*. The fourth sort (which are these I shall write of in this Treatise, and are fittest for our purpose) are the *Irish Potatoes*, being little different from those of *Virginia*, save only in the Colour of the Flower, and time of flowring; for these bring forth a white Flower about the end of *June*, and so continue flowring most part of the Summer: the other (as Mr. *Gerard* saith) flowreth not till *August*, and beareth a purple Flower. These Roots, although they came at first from the *Indies*, yet thrive and prosper very well in *Ireland*, where there is whole Fields of them; from whence

The Indians saith, the Americans call them Hetich.

whence they have been brought into *Wales*, and into the North Parts of *England*, where they likewise prosper and increase exceedingly. They are in quality temperate, very agreeable and amicable to the Nature of Man, and of a good and strong nourishment. In substance they are brittle and mealy, and therefore very fit to be put into Bread, and to make divers kinds of wholesome Meats, as shall be shewed hereafter.

What kind of Ground they must be planted in.

If you intend to plant of these Roots, you must make choice of such a Piece of Ground as is not too wet in the Winter, for if the water stands upon it, and hath not free passage away, all the Roots, by being too much soaked with the wet, will become rotten; therefore the Ground must either lye upon some kind of Discent, or else be so ordered in the Digging, and divided into long Beds, with Furrows between them, that the water may the better be conveyed away; which Beds ought not to be above six Foot wide, that so the Planter, by going along the Furrows, may pluck up the rank Weeds, which come up before the *Potatoes*, and not tread upon the Beds.

The manner of planting them.

Having found out Ground fit for the purpose, it must be digged at the beginning of Winter, that the Frost may make it hollow; and if it be not sufficiently rich of it self, it must be made so, by mixing good rotten Dung with it; and then, at the latter end of *March*, it must be digged over again, and all the Clods and Turfs being well broken, you may plant the Roots half a Foot deep in the Earth, and about eight or nine Inches asunder; but you must first cut them into quarters, or halves, or

into lesser pieces, leaving alwayes upon every piece one Bud at least, which you may perceive in the little cavities here and there upon the Roots; and thus a great deal of Ground may be planted with a few Roots; which about the beginning of *May* thrust forth their Leaves; the Flowers being of a white Colour, bud forth in the end of *June*; the Fruit or Berry comes not to maturity in our Climate, but is for the most part alwayes green. The Roots may be digged from the beginning of *September* till the end of *March*, seven Months together; and may be used for the making of Bread, and other kinds of Food, eight Months, even till the end of *April*. And for fear of Snow, or hard Frost, they may be kept upon dry boarded Flowers for two or three Months together; and though they may seem a little withered, yet in the boyling they will be as plump and as full as at the first.

In the Digging, you must observe, that all the very small Roots, and all the little pieces of Roots, must be left in the Ground, that it may be sufficiently stored the next year. Also they must not be digged after the end of *March*, for that will hinder their early coming up, and consequently their increase will be the less. Thus far of the manner of planting *Potatoes*, we now come to shew the several Uses thereof, and first;

How to make Bread with *Potatoes*.

THe first and greatest Use of *Potatoes* is for the making of Bread, which I doubt not but will be of much benefit to all sorts of people, especially to the Poor in times of scarcity: And indeed, this was the chief Cause both of the Invention and Publication hereof. For having seen how much poor people have suffered, and what great Complaints they have sometimes made, by reason of the dearness of Corn, and the slender relief which they found at the hands of those who were able enough to help them; I began to think with my self, what means might be used, to prevent the like for the future: And knowing the Nature, and great increase of this Root, I made trial thereof for the making of Bread; and by the blessing of God, it succeeded according to my desire. I then planted of them, and afterwards for two years together I made further trial of them, and found that they might be put to divers other good uses, which in love to my native Country, and for the good of the Poor, I have here set down, beginning with the way and manner of making Bread therewith, which is as followeth. To make Bread of *Potatoes*.

If you will bake a Bushel, you shall take half a Bushel of these Roots, and putting them into two little Nets, which is a Peck into each Net, boyl them in a Kettle of water till they break between your fingers, but let them not break in the boyling;

when they have boyled a quarter of an hour, in which time they will be boyled enough, take out the Nets, with the Roots, and hang them up a while, that the water may drain from them; then put them out into a wier Sieve, made for the purpose, being almost as thick as a course hair Sieve, and strengthened with three or four strong Wiers, or small Iron Rods, over-thwart the bottom; and with an Iron Truel let them be all broken, and rubbed through the bottom of the Sieve, into a Vessel underneath; by which means the Skins of the Roots will remain behind, and the Meal will pass through, being much like unto boyled Rice. Before you put the Roots into the Nets, you must cut the great ones into halves or quarters, otherwise the small ones will be boyled to pieces, before the great ones are boyled enough.

The Roots being thus prepared, you may make Bread of them after this manner. You must take as much Wheat or Barley Flower as your half Bushel of *Potato* Meal weighs, and mix them well together with your hands; then put to it as much warm water, mix'd with a little Barme, as you think will make it into very stiffe Dough, and as much Salt as is convenient; which being done, knead it well, until it be exactly mingled, which will quickly be, by reason of the dryness and mealiness of the Roots; afterwards make Loaves of it, and see that it be well baked.

This Bread, if the Corn was good, and if it be rightly made, and well baked, will be as hollow, and as white, as pleasant in taste, and as wholesome and nutrimental, as if it was all of Wheat;

for

for all that have written of *Potatoes*, do agree, that howsoever they be eaten, they do mightily comfort, strengthen and nourish the Body.

But if any shall Object; That *this Bread is windy*. I Answer; That it cannot be, for the Roots being first boyled, and then mingled with Flower, and afterwards baked, it is impossible they should be windy: For by this double Coction they are so corrected, that they are made the more wholsome, and all their windiness taken away: Neither being thus used, can you at all, or very little discern the taste of the *Potatoes*, by which it is evident, that the Bread made of them is not windy. And not only may Bread be made of these Roots, but also divers other wholsome Meats, as here followeth.

The Roots themselves are not windy therefore not the Bread.

How to make Paste of *Potatoes*.

YOu may make of *Potatoes* excellent good Paste, if you take equal parts of the Root, and of good Wheat Flower, and make Dough thereof, as you did for Bread, with warm water, only in this you must leave out the Barme, and adde a little Butter, yet not in too great a quantity; Of this Paste you may make Pyes, Patties, Tarts, *&c.* which you must bake presently after they are made, in an Oven made something more hot than ordinary for such things; and so you will have as good Crust as if it had been all of the best Wheat Flower. Also you

Paste of *Potatoes*.

you may make Paſte with Barley Flower, and theſe Roots, and it will be better, and not ſo apt to cleave and crack, as that which is made all of Barley.

How to make Puddings of *Potatoes*, either baked or boyled.

Puddings. FOr to make Puddings of *Potatoes*, you muſt take one half of the Roots, boyled and broken, as before for Bread, and one half of Wheaten or Barley Flower, and mix them well together, with ſome kind of Liquor, adding alſo two or three Eggs to make it hollow, and what other Coſt you pleaſe, and having ſo done, you may either bake them in an Oven, or boyl them in a Bag; and being well baked or boyled, and then buttered, (or they may be made with Suet if you pleaſe) they will be as pleaſant in taſte, and as wholeſome, as if they were made only of Wheat.

Y

How to make very good Cuſtards of *Potatoes*.

Cuſtards of *Potatoes*. TAke a Quart of New Milk, (or Cream, if you will be at the Coſt,) ſix or ſeven *Potatoes*, boyled, and very well broken, a couple of Eggs beaten, Sugar about a quarter of a pound, a little Nutmeg

meg grated; mingle them well together, and put it into a shallow pewter or earthen Dish, or else into Crust, having first put a little piece of Butter into the bottom, (if it be made only of Milk) and so bake it in an Oven, or over some Coals; then keep it till it be almost cold, and you will have an excellent, dainty and wholesome Dish, being both very pleasant to the Palate, and very restorative and strengthening to the Body; and also so cheap, that for four pence charge, as much may be made, as will serve two reasonable men for a Meal.

How to make *Potato* Cheescakes.

YOu may make Cheescakes of *Potatoes* after this manner. Take of the Roots, very well broken, and rubbed through a wier Sieve, what quantity you please; grated Bread a quarter as much, Cream and Eggs beaten together, enough to make it of a fit consistence, or so thick as it usually is made for this purpose; Currants, Sugar and Spice, of each as much as is needful: Stir all these things well together; then raise your Coffins in form round and shallow, which fill with your former mixture, afterwards bake them in an Oven, and you will have Cheescakes (so called, *a forma & similitudine*) in goodness exceeding those that are made of the Curd of Milk: These Cheescakes may be made even in the midst of Winter, when the other sort, Cheescakes.

by reason of the scarcity of Milk, and the coldness of the weather, are very seldom to be seen.

To make Cakes of *Potatoes*.

Cakes. THose kinds of Cakes, commonly made by Bakers, of the best Wheat Flower, with Fruit, Spice, *&c.* may also be made with a mixture of these Roots with the Flower, so well, as not to be discerned in the least: But there is another kind of Cakes, cheaper, and more fit for poor people, made after this manner. Take of the Meal of the Roots, as much as you please; of Wheat Flower, or for want thereof, fine Barley Flower, enough to make it into Dough, without water; put a little Salt to it, and knead it well; then make thin Cakes of it, and bake them in an Oven, or upon the Hearth. These Cakes are quickly and easily made, and being eaten with Butter whilst they be hot, are very good for Children, and by reason of their cheapness, for all poor people.

After the same manner may Bread be made, cheaper than the other way before mentioned; for by how much the more of the Root is put into it, by so much will it be the cheaper: And usually to make Bread without water, or any other moisture, than what is in the Roots, except a little Barme, there is required three parts of the Meal of the Roots, to two parts of Flower. I have seen Bread made after this

this way, very good, white and hollow, though there was no Barme at all put into it; but I shall leave this to every one, to use that way, which by his own experience he finds to be best.

I could here set down divers other things, which might be made with these Roots; as divers kinds of fryed Meats, divers kinds of sweet Meats, *&c.* but I will not at this time, because I think these are sufficient to lead those that be ingenious (as many are, for their Bellies especially) to the discovery of other things of the like nature; Nor would I have these to be followed and imitated, *Ad unguem*, but let every one, according to his knowledge and experience, according to his Purse and Palate, adde, alter or diminish what he please.

Besides the former wayes of using them, they may also be used of themselves for Meat; for some boyl them, or roast them in the Embers, and having peeled them, stew them in Wine, with Butter and Sugar, or butter them only, and so eat them: Some bake them in Pyes, with Marrow, Sugar, Spice, and other things: Some boyl them, and eat them with fat Beef, or other kind of fat Meat, and others dress them other wayes, every man according to his own taste and liking; all which wayes they are a very wholesome and strengthening Food; and by these several wayes of dressing them, they are like so many varieties, and change of Dishes.

And thus I have shewed you the several uses of *Potatoes*; I shall now proceed to shew, what great Benefit they may be: First, to the Planters, by planting of them. Secondly, to the whole Kingdom, by the use of them.

The Benefit of Potatoes to the Planters.

The Benefit which theſe Roots will be to the Planters, will be very great, as ſhall be proved by the Demonſtration following. Suppoſe a man ſhould plant one Acre of good Ground, which if it be Earable Land, may perhaps be worth eight, nine or ten Shillings a year; or if it be Paſture or Graſs Ground, it may be worth twenty Shillings, or more; we will count, how much more profit may be made of it, by planting it with theſe Roots, than can be made of it, if it lye for Graſs, or be ſowed with Corn, and ſo we ſhall perceive what the Planters Gain will be. And firſt, Every Acre of Ground contains eight-ſcore ſqaure Poles or Perches; Now ſuppoſe that one Pole ſhould bear but one Buſhel of Roots, in the Acre there would be eight-ſcore Buſhels of Roots, and every Buſhel (I mean an heaped Buſhel, for ſo ſuch things are alwayes meaſured) will make as much Bread as a Buſhel of Corn: Here is eight-ſcore Buſhels of Roots, againſt twenty, thirty or forty Buſhels of Corn, which is as much as an Acre can yield: Now if theſe Roots may be ſold for twelve Pence a Buſhel, which they are very well worth, the eight-ſcore Buſhels come to eight Pounds.

But further, if every Pole of Ground yields three or four Buſhels of Roots, as it will, if the Ground be good, and yet you may leave enow to ſtore the Ground the next year, then is the Gain much the more, for out of the Acre may be digged ſix hundred and forty Buſhels, which (being ſold for twelve Pence a Buſhel) comes to thirty two Pounds; thus you may ſee what Profit may be made of one Acre planted with theſe Roots. Be-

An Acre of Ground will yield 640. Buſhels of Roots.

ſides,

sides, the Ground being once planted, there is no more charge nor trouble about them, unless it be to destroy them, which is very hardly done: Neither is there any need of Dunging, (provided the Ground be good at the first) for the Stalks being spread upon the Ground, when the Roots are digged, and there suffered to lye and rot, serve instead of Dung: whereas for Corn, the Ground must every year be dunged, ploughed and sowed. But if any will bestow Dung upon his Ground, then he may reserve the Stalks for Fuel, which, if well dryed, and laid up, will be worth the Dung he layes upon his Plantation; but they must be left abroad till after *Christmas*, and often turned, before they will be through dry; but being dry, they will be excellent Fuel for brewing, heating of Ovens, or the like uses.

The Price of them.

As for the Price of the Roots, I think none will grudge to give twelve Pence the Bushel for them, if they consider what may be saved by them; for if, when Corn is at five Shillings a Bushel, a man may have as much Bread as two Bushels of Corn will make for six Shillings, he will have little cause to think it dear, because it saves four Shillings in every two Bushels, besides a great deal of pains, six Shillings being sooner earned than ten; and also, men that have Ground, will be the more encouraged to plant, when they see that there is good gain to be made of them.

But some may say; "What Profit will be made "of them in a plentiful year, for when Corn is "cheap, no body will make Bread of them?

To which I Answer; That in a time of the great-

eſt plenty, Bread may be made with one half of theſe Roots, and the other half of Wheat or Barley, cheaper than with all Wheat or Barley; beſides, the Bread which is made with Barley, and theſe Roots, is whiter, and far better than Barley Bread, even almoſt as good as that of Wheat; wherefore I cannot think, but that they will be uſed, as well in a plentiful year, as in a dear year.

Thus much of the Benefit theſe Roots will yield to the Planters thereof; we will now treat of the other Utilities and Benefits the uſe of them will bring to the whole Kingdom, ſetting them down every one in particular.

The Firſt Vtility.

The Firſt Utility of *Potatoes.*

THe firſt Utility will be to His Majeſty, who, of the Planters of theſe Roots, may have a Revenue of forty or fifty thouſand Pounds *per Annum.* willingly and freely, without any manner of compulſion, for that thereby, the Planters gain and benefit of their Plantations, will be made the more certain. Now this Revenue may be raiſed without any Charge at all to His Majeſty, and without any manner of damage or diſcontent to any Subject whatſoever, after this manner following.

Firſt, If it ſhall pleaſe His Majeſty to command, that there be brought out of *Ireland*, ſo many of the ſaid Roots, as that (with thoſe which already are

to

to be had in *England* and *Wales*) every man which ſhall be Licenſed by His Majeſty to plant of them, may have one Buſhel at leaſt to begin his Plantation with: And if (after the Roots are brought over) ſuch a courſe be taken, as that they may be conveyed to all the chief Towns throughout *England*, then the Planters may fetch them (four or five joyning together) without much charge; allowing notwithſtanding to thoſe that bring them ſufficient gain.

Now if every Planter have one Buſhel, he may with that plant about four Poles of Ground, cutting every Peck into four hundred pieces, and planting them as hath been ſhewed before; and by yearly digging them up, and planting more Ground, without diminiſhing of them, (ſtill leaving that which was firſt planted ſufficiently ſtored) with the increaſe of the ſecond year, he may have an Acre and half, or two Acres of Ground planted: So that at the end of two years and an half, he may begin to digg up the Roots to ſell, and at the end of three years, he ſhall have received one years profit, and then all his charge and trouble will be at an end, beſides the yearly digging of them up, which is but little, conſidering the profit he makes by them.

Secondly, If His Majeſty will be pleaſed to command, that there be in every Town and Pariſh one or two, according to the bigneſs of the ſeveral Towns and Pariſhes, that ſhall plant, and keep planted with the ſaid Roots, each man an Acre and half, or two Acres of Ground, that they may be ſufficiently ſtored with them: Or (which is a

more

more certain way) that there be for every hundred Families one Planter, withall prohibiting all persons whatsoever from planting of them, either to sell, or for their own private use, but only those which have License and Authority from His Majesty to plant and sell them, which perhaps may be about the number of ten thousand, there being in *England* and *Wales* almost ten thousand Parishes; and although some Parishes have not an hundred Families, yet others have two, three or four hundred Families, therefore it is probable there may be ten thousand Planters in *England* and *Wales*; and questionless, so many Roots may be had in *Ireland*. and *Wales*, and in the North of *England*, as that every Planter may have a Bushel or more.

Thirdly, If His Majesty shall be pleased to command, the use of these Roots, by all people, in all parts of *England* and *Wales*, *viz.* by putting one half, or a third part thereof into their Bread, for six Months together, every year, from the first day of *October*, to the last day of *March*, then will the Planters Gain be made certain: For, suppose that every Planter do serve an hundred Families with Roots, and they tyed to buy of their own Planter, (as it is necessary they should) those hundred Families cannot spend less than an hundred Bushels in a Month, which comes to five Pounds; and in six Months six hundred Bushels, which comes to thirty Pounds; out of which, every Planter may afford to pay to His Majesty five Pounds *per Annum*. for his License and Authority to plant and sell the said Roots; which, of ten thousand Planters; amounts to fifty thousand Pounds

Pounds *per Annum*. which may be paid to His Majesty every year at the latter end of *March*, at what time the Planters will have made the benefit of their Plantations: The other twenty five Pounds they have for the Rent of their Ground, and for their Labour, which is only for one half year; the other half they may spend about their other Employments.

But this is not yet all that they will make of their Plantations; for it may be supposed, that, although the use of these Roots is enjoyned, but only for six Months, yet they will be used, both before that time, and also after that time is expired; so that their gain and benefit will be increased perhaps ten Pound a year more, besides what they save by them in their own Houses: And then, if every Planter should serve but fifty Families, each Family spending but one Bushel a Month, (although some will spend more) they would notwithstanding make twenty Pound a year clear; counting those which they spend themselves, to save them as much in House-keeping, as all the Charge the Digging of them comes to, and therefore may also afford to give five Pound a year for their License.

And if some of the nicer sort of People shall not fancy the Bread, wherein there is so many of the Roots, they may put only a fourth part of them into their own Bread, and one half, or a third part into their Servants Bread; and if they shall use them some of the other wayes afore-

afore-mentioned, they may easily spend every Month one Bushel and more, though they have but a small Family.

Before I proceed any further, it will be necessary that I answer some things, which may be objected against the preceding Discourse. For

An Objection. some perhaps may Object, and say; "Why "should we in *England*, who have plenty of "Wheat, and other kinds of Grain, be com-"pelled to imitate the barbarous *Indians*, and "make our Bread of Roots.

The Answer. To which I Answer, That, although we have some years plenty of all sorts of Grain, yet other years it is so scarce, and at such Rates, that many poor People, by reason of the Dearness thereof, have been starved; & others, that have had somewhat better Estates, & also many Farmers themselves, have been almost undone by it; which hereafter, by the blessing of God, and the help of these Roots, may easily be prevented. Besides, we shall do a very charitable work, in saving a great deal of Corn yearly, and furnishing other Nations, which have more need of it. And as for the imitating of the *Indians*, I Answer.

First, That there is no Nation so barbarous, no People so brutish, but there is something amongst them worthy of imitation.

Secondly, I ask, Why these Roots should not be made use of, by which many thousands of poor men, in the greatest times of scarcity, may with ease maintain their Families, as well as that *Nortwick Indian* Herb *Tobacco*, which corrupts

rupts the Breath, dulls the Sences, makes many a good Wit sottish and stupid, many a rich man beggerly and poor? I do not deny the Medicinal use of it; for it is endued with many excellent Faculties; but this I think, that of all the wayes of using it, the common way of taking it in a Pipe is the worst, although some Physicians commend it to their Patients, and use it themselves, (as they pretend) for the Exciccation of Rhumes; I rather judge it to be, that both themselves, and their Patients, may in the Tavern or Ale-house, (like good Fellows) sit and drink with the more liberty and freedom, against the dangerous Consequents whereof, this is accounted a special Antidote.

But to return to our purpose; I say, that in the use of these Roots, we imitate not the *Indians*; for the *Indians* themselves, the greatest part of whose Diet they have been for many Ages, never knew these several uses of them; nor have they been used after this manner in any Nation, where of late years they have been planted.

And Lastly, Seeing they may be so profitable to all sorts of people, there is none (I think) but without compulsion will be willing to make use of them.

Another Objection.

Some again will Object, and say; "If the "planting of these Roots, and the use of them, "is so beneficial, as you pretend; why should "not every man plant of them? Why should the "planting of them be prohibited, and only a

"certain number allowed of, and those made to "pay a yearly rate for the doing of it?

The Answer. To this I Reply. First, That if some such course be not taken, it will be many years, before they will be so planted, as that any, especially the Poor, and those that have no Ground of their own, will ever be the better for them: but by this means, in two years and an half, there will be such store of them in all parts of the Kingdom, as that every one may know where to have them for their Money.

Secondly, My intention in the Writing and Publishing of this Treatise, was partly, that those who have little or no Estates, nor was ever brought up in any Calling, should, by the planting of these Roots, have a way to get a Maintenance for their Families; which cannot be, if every one should plant them.

Lastly, There is no Reason, why that which is so beneficial to the whole Kingdom, should not be made beneficial to the Kings Majesty also, seeing it must be by His Authority chiefly, that it comes to be of benefit to any. Thus having sufficiently Answered these Objections, I shall proceed to

The Second Vtility.

THe ſecond Utility and Benefit of theſe Roots, will be by the Tranſportation of Corn; for by the uſe of them in Bread, abundance of Grain, of all ſorts, may every plentiful year be ſpared, to be tranſported beyond Sea into other Countries; which will be a great benefit, both to His Majeſty, and His Subjects. For, The Second Utility.

Firſt, His Majeſties Revenue of Cuſtom will be increaſed, by the often coming in of Ships for Corn, with Foreign Goods and Merchandize: Alſo a League and Amity will be continued with thoſe People, to whom it is tranſported; ſo that from them, His Majeſty (if need require) may have aid and help againſt Foreign Invaſions, or Domeſtique Diſturbances; which, if at any time hereafter they ſhall happen, ſo as not to be ſuppreſſed with mean Force, a Foreign Army may quickly be procured, and here in *England* be eaſily maintained, without raiſing the Prizes of any kind of Grain whatſoever.

Secondly, The Merchants which deal and trade with theſe Commodities, in any great quantity, (as they may, when theſe Roots be once brought into uſe) muſt needs be enriched by it.

Thirdly, Husbandmen and Farmers (who perhaps may think the former way, *viz.* of

making Bread of these Roots, to be some hinderance to them, as indeed it will) may by this means sell their Corn for as good Prizes, as if the aforesaid Roots had not been in use.

The Third Vtility.

The Third Utility.

ANother Utility of these Roots is this: That, whereas there hath been of late years, divers whole Lordships and Towns enclosed, and their Earable Land converted into Pasture Ground; which practice being still continued, and more and more Land every year enclosed, will certainly in time very much increase the Price of Corn; yet, by the use of these Roots, poor People (who will suffer most by such practices) may notwithstanding that, have Bread at reasonable Rates.

The Fourth Vtility.

The Fourth Utility.

FOurthly, Poor People may maintain their Families more easily, and live more plentifully than heretofore; but especially in dear and scarce

ſcarce years, ſuch as was 1661. theſe Roots will be a great benefit to them; for if Wheat be at ten Shillings, and Barley at ſix Shillings a Buſhel, (as it was that year) yet may they make Wheaten Bread after the rate of five Shillings a Buſhel, and Barley Bread after the rate of three Shillings, ſaving thereby one half; ſo may they have Money, even in very dear years, to buy them other Neceſſaries, which otherwiſe they would want.

And now let any indifferent Reader judge, if this Project will not be beneficial to Tradeſmen alſo, who have never leſs Trading than when Corn is dear, (as I have heard many of them confeſs) for then poor People (who are none of their worſt Cuſtomers) have enough to do to get Money to buy Bread for their Families, without which they cannot live, and therefore muſt let alone other things leſs neceſſary: But when theſe Roots ſhall once come into uſe, People will live more happily and plentifully, Trading will flouriſh, and much Glory will redound to Almighty God, for diſcovering ſo profitable a Secret.

The

The Fifth Vtility.

The Fifth Utility.

THe fifth Utility and Commodity the use of these Roots will yield, is, That all those poor People, that are maintained by the Parish where they live, and are a constant Town Charge, may be maintained with farre less Charge than formerly, which will be a great ease to those Parishes that are full of poor People: And so I come to

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The Sixth and Last Vtility.

The Sixth Utility.

WHich is to all sorts of People in general, for that there is none, of what quality or degree soever, but (if they please) may yearly save Money in House-keeping, by the use of these Roots, and that without any discredit or disparagement at all, it being no discredit for any man to be frugal. But if any shall be so proud, as to think it below their degree, to make use of so mean a help, let them forbear the use of them, unless by publique Authority it be commanded. Many I know there are, who, because they are Gentlemen, will think, that it belongs

belongs not to them to be saving and provident, but rather to be free and generous, (as the Name imports,) and to spend what they have merily; but let such consider, that a prodigal Father makes a beggerly Son, and that the Estates which they so freely spend, was left by their Ancestors, not to them only, but also to their Children after them; which for them to waste in Extravagancy and Riot, and so to rob and deprive their own Children of their right, is not only as great a Sin, but also a Fact much more unnatural, than to rob a man upon the high way, for which they ought to suffer Death by the Laws of the Realm. I have known some, who have been so guilty of this wasteful and extravagant kind of Living, that it hath been the utter ruine and destruction of themselves, and their Posterity. But to come to a Conclusion, Let every Man, that desires to live in Credit in the World, and that his Children should do so after him, remember the Golden Sayings of the Philosopher, *Adibe curam, vive mensuram, & eris dives*, and not lavish away his Estate like a Prodigal, and when he dyes leave his Children Beggers; but let him use all the wayes of Frugality that he can, among which, this Experiment, which I have here published, for the good of my Country, will be none of the least.

Thus have I finished what I intended in this Treatise, and have to my knowledge omitted nothing, either concerning the Planting, or Use of these Roots: I have now nothing else to

ſay of them, but what I have partly ſaid already, which is, that they are good and wholeſome, ſtrengthening and nutrimental, not windy in the leaſt, much of the nature and temperature of Wheat, *viz.* having no great inequality of heat, cold, moiſture or dryneſs; yet, if they exceed in any quality, it is in dryneſs, and in that they are the more wholeſome; for *Hypocrates* ſaith, *Siccum eſt ſano proximum*; and Experience teacheth, that a drying Diet is better for the Body, than that which is too moiſt: For when a *Compoſitum* muſt periſh, it periſheth by the Element of Water, which overcomming, natural Heat is quenched and extinguiſhed in Animals; hence followeth the deſtruction and mortification of a part, or of the whole Body: But theſe Roots, by their moderate dryneſs, preſerve the true temperature of the Body; which (according to *Hypocrates*) is, *Naturalis ejus ſiccitas*, and therefore, may ſafely be uſed, as a wholeſome and healthful Food.

Neither are they wholeſome only, but very profitable alſo, and that for two Reſpects.

Firſt, For that by the uſe of them, Bread may be made a great deal cheaper, than with all Wheat or Barley.

Secondly, For that they are not hurt (as Corn is) by the unſeaſonableneſs of the Weather, for whether the year be dry or wet, (if the water have free paſſage away, and ſtand not upon them) they are not hurt by it, nor is their increaſe much the leſs.

And

And now, leſt any ſhould erre in the making of this Bread, and ſo impute the fault to me, which is cauſed through their own unskilfullneſs, I will here again ſet down the way and manner of making it, as plain as poſſible I can, and ſo conclude this Treatiſe.

Take therefore of the Roots, as many as you pleaſe, or as your preſent occaſion requires; and if they be for white Bread, or for Paſte, you may (if you pleaſe) pare them with a Knife; if for courſer Bread, you need not: Then cut the great ones into halves or quarters, that they may be boyled as ſoon as the ſmall ones; afterward put them into a Net, made indifferent large and thick, (never putting above a Peck into a Net) and boyl them in a Kettle of Water, till they will break between your Fingers, but let them not break in the boyling, leſt they be too much ſoaked with water; when they are boyled enough, (which will be in a quarter of an hour, or leſs) take them out, and with an Iron Truel, rub them through a thick Wier Sieve; which being done, you may make Bread of them two wayes.

Firſt, Take an equal weight of the Roots thus prepared, and of Wheat or Barley Flower, and mingle them well together; then put to it as much warm Water, mix'd with a little Barme, as will make it into very ſtiffe Dough, and with a little Salt, knead it well together.

Secondly, Take ten Pounds of Wheat or Barley Flower, fifteen Pounds of the Roots,

prepared as aforesaid; or so much as will make the Flower into very stiffe Dough, without either Water or Barme; yet, if you perceive that it be not hollow enough, you may adde a little Barme. Of these two kinds of Dough may be made thin Loaves, which must be baked in an Oven well heated, for it requires something more baking than other Bread.

And thus may Bread be made, as well in dear as in plentiful years, at easie and cheap Rates, not without great benefit both to Rich and Poor; there being none of so dainty a Palate, or so finely fed, but may eat this Bread with pleasure and profit: And although some there may be, who will find fault with it; yet the time may come, when those that most dislike it, may be glad to make use of it. However, I doubt not, but that this my Experiment, will by poor People, and those of small Estates, be well approved of, and also in convenient time be made use of, to the Glory of God, and the good of themselves, and their Families.

AN APPENDIX, TOUCHING The Propagation of these *Roots* by the *Seeds*.

AFter I had written this Treatise, and fitted it for the Press, I found, that these Roots might be increased by the Seeds or Berries, which till then I knew not; for that the year before I took the Seeds out of the Berries, and sowed them, and they never sprang up, and therefore I thought that the Seed came not to sufficient maturity in our Climate: But to make further trial, this last year I set divers of the Berries whole, which, contrary to my expectation, came up about the beginning of *June*; and are now half a Foot high *July* the 8.

If any will plant the Berries, for the more speedy increasing of their store of Roots, they must set them in good, rich and hollow Ground, well digged and raked, and divided into long nar-

row Beds, about two Foot wide, with Alleys between them, that they may be the better weeded; for the Berries being set in *March*, will not come up before *June*, and therefore the Ground will be full of Weeds, which will choak the young *Potatoes*, if they be not diligently weeded.

As for the time of gathering the Berries, it must be about *October*, when they are turned a little white; and when they are gathered, they must be laid thin upon a boarded Floor till *March*, and then set into the Ground as aforesaid, and so will they spring up in *June*, & that year yield Roots, to plant again the next, which may either be digged up, and planted thinner, or else left in the Ground, which the year following will be mightily filled with them. This I thought good to adde, by way of *Appendix*, for the better, and more speedy increasing of these Roots.

Thou, O God, hast of thy goodness prepared for the Poor, Psal. 68. Ver. 10.

He satisfieth the empty soul, and filleth the hungry soul with goodness, Psal. 107. 9.

FINIS.